## STUDIES IN THE EUPATORIEAE (ASTERACEAE). CLXXXIII.

 A NEW GENUS, BEJARANOA.R. M. King and H. Robinson<br>Department of Botany Smithsonian Institution, Washington, D.C. 20560

The lack of papillosity on corolla lobes or styles, the lack of enlargements or hairs on the style bases, and the lack of various other specialized traits are found in diverse elements of the Eupatorieae. More subtle characters are often required to determine the proper relationships of such groups. One group described here as a new genus Bejaranoa has had to await improved subtribal concepts in the Eupatorieae and more accurate delimitation of other genera with which it could be confused.

Bejaranoa shows at least superficial resemblance to Koanophyllon of the Critonia series, Austroeupatorium of the Eupatoriinae, and to Conocliniopsis of the Gyptis. Koanophyllon and its immediate relatives do show the most reduced involucre in the Critonia series and approach that of Bejaranoa in aspect but the inner bracts are more deciduous, the corolla lobes are of a distinctive broadtriangular form and alternate leaves are found in only. one aberrant species. No close relation seems to be involved. Austroeupatorium has alternate leaves in the upper part and has the more subimbricate involucre common in the Eupatorieae but has the hairs on the base of the style characteristic of that subtribe. Conocliniopsis is seen most similar having alternate leaves, similar form of the inflorescence, individual involucral bracts of the same form and flowers of the same general shape. The genus Bejaranoa seems to be related to Conocliniopsis as closely as to any genus and therefore belongs to the Gyptis series though it differs from Conocliniopsis and most of the series by the unequal involucral bracts and nearly smooth style branches. Further evidence of this relationship is seen in the tendency for a slightly conical receptacle in Bejaranoa though this is not comparable to the highly conical form seen in Conocliniopsis: Further distinctions of Bejaranoa from Conocliniopsis are the lack of glands on the achenes, the larger cells of the carpopodium and the smaller $17-20 \mu$ in diameter pollen found in the latter genus.

The genus is named for Professor Gaston Bejarano, head of the Ministry for Forestry, National Parks, Hunting and Fishing. The senior author greatly appreciates the help that Professor Bejarano provided during the
course of field work in Bolivia recently.

Bejaranoa R.M.King \& H.Robinson, genus novum Asteracearum(Eupatorieae). Plantae erectae suffrutescentes ca. 0.5 m altae mediocriter vel multo ramosae. Caules erecti teretes striati brunnescentes dense hirtelli et glanduliferi. Folia alternata distincte breviter petiolata; laminae ovatae vel ovato-lanceolatae base obtusae trinervatae margine serratae vel duploserratae apice obtusae vel breviter acutae. Inflorescentiae terminales, ramis dense corymbosis, pedicellis brevibus vel nullis. Capitula campanulata; squamae involucri subimbricatae ca. 4-seriatae 8-15 inferne $2-4$-costatae superne laxe herbaceae, squamae interiores persistentes; receptacula convexa vel minute conica glabra vel subglabra. Flores 4-10; corollae anguste infundibulares, tubis cylindricis, faucis extus pauce glanduliferis intus glabris, cellulis interioribus in parietibus laxe sinuosis, lobis ovato-triangularibus vix longioribus quam latioribus margine subcarnosis extus dense glanduliferis superne minute papillosis intus laevibus; filamenta in parte inferiore glabra in parte superiore breviter cylindrica, cellulis in parte superiore breviter oblongis in parietibus dense annulate ornatis; cellulae endotheciales subquadratis; appendices antherarum oblongae longiores; quam latiores; basi stylorum glabri non noduliferi; appendices stylorum lineares superne leniter clavatae minute leniter mamillosae. Achaenia prismatica 5 -costata setifera et glandulifera inferne angustiora; carpopodia breviter late obturaculiformia superne distincte limitata, cellulis $4-8$-seriatis subquadratis vel breviter oblongis ca. 12 $\mu \quad$ latis et $12-20 \mu$ longis parietibus subincrassatis; setae pappi capilliformes ca. 30-55 dense scabridae, cellulis apicalibus acutis vel interdum truncatis. Grana pollinis 23-25 $\mu$ diam.

Species typica: Eupatorium balansae Hieron.
The genus contains the following two species as shown in the key below.

1. Leaves strongly crenate-serrate to sharply serrate; heads single on short pedicels, each head with 510 flowers; achenes densely pubescent throughout
B. balansae
2. Leaves shallowly crenate, heads in pairs or small complexes that look like heads; each head with 45 flowers; achenes less densely pubescent in lower half
B. semistriata

Bejaranoa balansae(Hieron) R. M. King \& H. Robinson, comb. nov. Eupatorium balansae Hieron., Engl. Jahrb. 22:778. 1897. Bolivia, Paraguay. The species shows considerable variation in number of flowers per head ( $5-10$ ) and number of pappus setae (30-55). The stems and pedicels usually have only sessile glands. One specimen (Cardenas 4607) from Bolivia represents an extreme form with the maximum number of flowers (10) and pappus setae (50-55) and with stipitate glands. Glands of this type are like those seen in B. semistriata.

Bejaranoa semistriata (Baker) R. M. King \& H. Robinson, comb. nov. Eupatorium semistriatum Baker in Mart. FL. Bras. $6(2): 319$. 1876. Conoclinium semistriatum Sch.-Bip. in Baker in Mart. Fl. Bras. 6(2):319. 1876

The species superficially resembles $B$. balansae very closely but the leaves are less strongly crenateserrate, the achenes are less densely pubescent and the undersurface of the leaf has glandular punctation more evident because of the less dense pubescence.Examination of the head-like structures on the material of the type (Pohl, Brazil) kindly loaned by Dr. H. Merxmuller, Director, Botanische Staatssammlung, Munchen, shows that each is divided by a series of bracts into 2 or even 3 units containing 4-5 or occasionally less flowers.

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